

and especially their remedial action, all the resources at our command, and of harmonizing not only the experimental data furnished by different observers, but the facts acquired by careful clinical observation.

It is from this point of view that all the recent text-books have been written, and the one before us is another claimant for favor in this class.

The author possesses special qualification for this task in the work he has done in experimental pharmacology; but he has, notwithstanding this temptation, avoided the error of basing his statements exclusively thereon, and endeavored to show the bearing and connection of the two sets of facts, and their application to actual practice.

The work is divided into four parts for convenience of reference.

After a concise introductory section the second takes up the drugs of the *United States Pharmacopœia* and others in general use, in the alphabetical order, giving first a very brief description of the drug itself, and then stating its mode of action and its application in disease, as well as the methods of administration. In the case of the more powerful drugs, the symptoms of poisoning and its treatment are given.

The third part treats of remedial measures other than drugs.

The fourth part consists of sections upon the treatment of diseases and symptoms, arranged in the same way.

It is out of the question to criticise minutely a work composed of so many short articles of varying importance.

In the present state of *materia medica*, with its enormous numbers of drugs containing the same or closely-allied principles, and the extreme rapidity with which new compounds are being added by the chemist, it appears to the writer that one of the wants is generalization. This, however, it would be unfair to find fault with this book for not attempting, as it is hardly compatible with its plan and arrangement.

It appears, also, to the writer, to be a mistake to try to present, in the compass here admitted, a systematic plan of treatment for each one of the whole alphabetical catalogue of diseases. There is either too much or too little. However, the attempt having been made in this instance, it is fair to say that it is by no means altogether unsuccessful. The treatment suggested is judicious and practical.

There are, as is likely to happen in nearly all first editions—and it is fortunate if they are not continued—a few slips.

We may suggest that a person who tries the author's first plan of disinfection (p. 319), by heating sulphur in an iron pan over an alcohol lamp, is very likely to find himself involuntarily trying the second, where the sulphur is mixed with the alcohol.

Again, it is not easy to understand how the water which has been used to scrub the floor of an infected room can be afterward boiled.

In a future edition the slight air of hurry and sketchiness which seems to attach to the present one can easily be removed. E.

THE CROONIAN LECTURES ON CEREBRAL LOCALIZATION. BY DAVID
FERRIER, M.D., etc. London, 1890.

THE world of scientific medicine will welcome, in book-form, the latest authoritative statement of cerebral localization by the foremost

pioneer in this department of physiological research. This book is a reprint of Dr. Ferrier's lectures before the Royal College of Physicians. It is safe to say that it brings the subject entirely up to date. It is founded upon both experiment and clinical observations of the author and others. It is, of course, a statement of Dr. Ferrier's particular views, and is sometimes controversial, but the great amount of experimental work done by the author, and his accurate observation, go far to justify his conclusions, which his clear language so admirably sets before the reader.

Much of this book is necessarily a restatement of facts now generally accepted: this is true especially of the part devoted to the motor centres. In the remaining part a few points are especially noteworthy.

The author does not recede from his original position that the angular gyrus is the cortical centre for vision, although he enlarges the limits of the centre to include portions of the occipital lobe. Thus he speaks of the "occipito-angular region" as the visual area of the cortex. Complete destruction of this area in one hemisphere, he says, causes permanent hemianopsia to the opposite side by paralysis of the corresponding halves of both retinæ, while bilateral destruction causes complete and enduring blindness of both eyes. Again, he says, the angular gyri are more particularly the centres for clear vision, each mainly for the eye of the opposite side. Hemianopsia accompanying cortical lesions of the occipital lobe proper, he thinks, is due probably to direct or indirect implication of the optic radiations. The opinion of Seguin and Nothern that the cuneus, or the apex of the occipital lobe, has a special relation to visual perception is not supported, Dr. Ferrier thinks, by experimental research. The apparent relation between lesions of the cuneus and hemianopsia is due to the special proclivity of this region to affection by morbid vascular conditions, and to coincident implications of the optic radiations of the occipito-temporal region. All these statements are clear and unequivocal, and the whole subject is elaborated at great length. As it is of great clinical importance it is much to be desired that experimenters should agree upon such a vital question. To be told that the cuneus has no connection with vision will disturb the acquired knowledge of many clinicians.

Dr. Ferrier gives the details of recent experiments to determine the auditory centre. His description of the actions of a dog-faced monkey in which he had excised the superior temporal gyrus on both sides is very graphic and conclusive as to the localization of hearing in this convolution. The facts of human pathology, the author thinks, undoubtedly support the view that the sense of hearing is localized in the temporal lobe, and more especially in the superior gyrus. Space does not permit an examination here of the claims to a localization of the tactile centre and of the centres for taste and smell.

The author gives due credit to the experiments of Horsley and Schäfer which demonstrate that the marginal convolution (the mesial aspect of the brain) presides over the trunk and hip muscles. It is noted, however, that to paralyze these muscles completely, which are bilaterally coördinated in this convolution, it is necessary to extirpate the centres of both hemispheres. This fact may be of some practical importance to the surgeon. For instance, the advisability of a cortical operation for obstinate torticollis was discussed recently in the Philadelphia Neurological Society. The question presents itself whether or not the muscles in-

volved in torticollis are bilaterally coördinated—*i. e.*, whether it would be necessary to remove the centre in both hemispheres? Dr. Ferrier's experiments do not appear to show this bilateral innervation. On the other hand, however, he says that there is reason for believing that the lateral movements of the head (and eyes) are not capable of being permanently paralyzed unless every portion of the frontal region be completely destroyed—a very heroic operation on man.

Dr. Ferrier is very positive that no form of sensation is localized in the motor cortex, and marshals a great array of facts, especially from recent autopsies and surgical cases, to support his position.

In conclusion, we are tempted to ask, Is the brain, after all, nothing but a sensori-motor ganglion? Are the rudiments of every idea a *sensation* and a *reflection*; has every psychic act a sensory and a motor aspect? This was practically the position of Locke, the greatest, most scientific English psychologist. Is he to be verified, even if only in part, by the experiments of the modern brain physiologists?

J. H. L.

STERILITY IN WOMEN, INCLUDING ITS CAUSATION AND TREATMENT.

By ARTHUR W. EDIS, M.D. Lond., F.R.C.P., Senior Physician to the Chelsea Hospital for Women; Late Obstetric Physician to the Middlesex Hospital, etc. Pp. 112. With thirty-three illustrations. London: H. K. Lewis, 1890.

As the author states in the preface, this monograph is simply a chapter from his former work on diseases of women, with some changes and additions, the latter being principally in the form of clinical histories. We confess that it is not easy to discover the *raison d'être* of the book, since the writer had nothing new to say and has not in publishing it added to his deserved reputation. The student does not need another monograph on this subject; the general practitioner will find it amply covered by Reeves Jackson's article in the *American System of Gynecology*; while for the specialist it is as elementary as it is antique. So much careful work has been done in this direction since the appearance of Sims's classic, that we are surprised to find that the writer has either overlooked or is not familiar with the recent French and German brochures.

In the introductory paragraphs attention is called to the possibility of sterility in the male. Too little stress is laid upon this point. The student should be taught that neither can the real cause of an unfruitful marriage be ascertained, nor can any truthful prognosis be given as to the results of local treatment until it is positively determined that the husband is not the guilty party. Injustice is constantly done to innocent women. Who will shield them from undeserved reproach, if not their physicians, who alone are in a position to learn the truth? Among the causes of sterility we notice that prevention of conception during the early years of marriage has not been mentioned. The family physician is a potent agent in the "prophylaxis" of sterility (if we may so term it) if he will only lay aside his mistaken notions of propriety and handle this delicate subject without gloves. Many women have